IN THE CLAIMS:

Please cancel claims 1-25, without prejudice, and add new claims 26-50 as follows.

Claims 1-25. (Cancelled).

26. (New) A method for balancing the load of resources in a packet switched connection within a communication system, said system comprising processing units for performing communication, at least one load balancing unit for distributing the load to said processing units, and a data storage, said method comprising the steps of:

obtaining a current connection state as well as a current load state of said processing units from said data storage;

selecting by said load balancing unit a processing unit on a per packet basis irrespective of a specific connection to which a respective packet belongs;

maintaining information about the load state of each processing unit so that said selecting step is performed by selecting a processing unit to serve and process a respective packet based on the load state.

27. (New) A method according to claim 26, wherein said data storage is accessed to by said load balancing unit.

28. (New) A method according to claim 26, wherein said data storage is accessed to by said processing units.

29. (New) A method according to claim 26, wherein said information about the load state is maintained as a Boolean state.

30. (New) A method according to claim 26, wherein a processing unit is selected in a round-robin fashion.

31. (New) A method according to claim 26, wherein a supported service profile for each processing unit is maintained.

32. (New) A method according to claim 31, wherein said supported service profile is used as additional selection criteria.

33. (New) A method according to claim 26, wherein said load balancing unit obtains a load state from each processing unit upon a hardware based mechanism.

34. (New) A method according to claim 26, wherein said load balancing unit obtains a load state from each processing unit upon a packet based mechanism.

35. (New) A method according to claim 34, wherein a load state of a processing unit is inserted into a packet processed by said unit.

36. (New) A method according to claim 34, wherein a packet returned by a processing unit is interpreted as a flag for a free resource.

37. (New) A method according to claim 26, wherein excess traffic is redirected to another load balancing unit, said excess traffic being defined upon the number of active processing units.

38. (New) A device unit for serving and processing packets of a communication connection, comprising:

    means adapted to inform a load state of said device to a balancing unit; and

    means adapted to obtain a state of said communication connection,

wherein said device unit is adapted to serve and process packets of plural connections.

39. (New) A device unit according to claim 38, wherein said obtaining means is adapted to retrieve said communication connection state from a data storage.

40. (New) A device unit according to claim 38, wherein said obtaining means is adapted to retrieve said communication connection state from a packet being under processing.

41. (New) A device unit for balancing a load of each of multiple processing units performing a packet switched communication connection, comprising:

means for maintaining a load state of each of said processing units; and

means adapted to select a processing unit on the basis of a respective load state on a per packet basis irrespective of a specific connection to which a respective packet belongs.

42. (New) A device according to claim 41, wherein a load state of a processing unit is contained in a table.

43. (New) A device according to claim 41, wherein a load state of a processing unit is expressed as a Boolean value.

44. (New) A device according to claim 41, wherein a load state of a processing unit is expressed as value which corresponds to the percentage of load.

45. (New) A device according to claim 41, wherein said selecting means is adapted such that a processing unit is selected also on the basis of a parameter indicating the service profile supported by a respective processing unit.

46. (New) A device according to claim 45, wherein said parameter is contained in a table.

47. (New) A device according to claim 41, further comprising

means adapted to insert a communication connection state into a packet to be routed.

48. (New) A device according to claim 41, wherein the processing units are comprised of multicore digital signal processing means having a shared data storage for all cores, whereby said device comprises a first level of load balancing for selecting a digital signal processing means and a second level of load balancing for selecting a single core.

49. (New) A device according to claim 41, further comprising

means for redirecting excess traffic to another device, wherein said excess traffic is defined upon the number of active processing units.

50. (New) A system adapted to perform a method according to claim 26.